

CLAIMS

We claim:

1. A system, comprising:

an accelerometer to measure tilt and rotation; and

5 a controller coupled to the accelerometer to distort image data responsive to the tilt and the rotation.

2. The system of claim 1 where the accelerometer is a two dimensional accelerometer.

10 3. The system of claim 1 where the controller calculates a horizontal angle responsive to the tilt and rotation.

4. The system of claim 1 where the system projects the distorted image data as an undistorted projected image on a projection surface.

5. A system, comprising:

position detecting means for detecting first and second positions; and

distortion means for distorting image data responsive to the first and second positions.

20 6. The system of claim 5 where the position detecting means is an accelerometer.

7. The system of claim 6 where the accelerometer is a two-dimensional accelerometer.

25 8. The system of claim 6 where the accelerometer is an inertial accelerometer.

9. The system of claim 6

where the accelerometer generates a tilt signal indicative of vertical tilt; and

30 where the accelerometer generates a rotation signal indicative of a horizontal rotation.

10. A method, comprising:

automatically detecting a projector's position in two dimensions;

predistorting image data responsive to the projector's position such that the predistorted image data projects an undistorted projected image on a projection surface.

11. The method of claim 10 where automatically detecting a projector's position
5 includes automatically detecting vertical tilt and horizontal rotation.

12. The method of claim 11 comprising calculating a vertical and horizontal rotation angles from the vertical tilt and horizontal rotation.

10 13. The method of claim 10 where automatically detecting a projector's position includes using an accelerometer.

14. The method of claim 10 where automatically detecting a projector's position includes using a two dimensional accelerometer.

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15. The method of claim 10 where automatically detecting a projector's position includes using an inertial accelerometer.